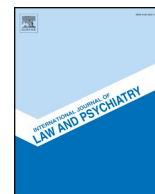




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COVID-19: Fear, quackery, false representations and the law

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HIGHLIGHTS

- Pandemics generate fear, anxiety and paranoia that can lead to a number of undesirable community phenomena, including discrimination, scapegoating and predation on the vulnerable
- Literature, religious connotations, film and gaming as shared cultural experiences are replete with emotive tropes relating to pandemics, plagues and pestilences
- An outcome of the emotional resonances of pandemics can be an opportunity for the unscrupulous to take opportunistic advantage by the publication of false claims of prevention, treatment and cure
- State responses to the risk of predatory quackery need to focus on providing calm, reasoned responses to a pandemic such as COVID-19 by provision of scientifically-based, up-to-date information
- Warnings in the form of cease and desist communications should initially be issued to those responsible for promotion of quackery and, as necessary, robust legal action should be initiated against the non-compliant as a public health deterrent.

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ABSTRACT

Fear, anxiety and even paranoia can proliferate during a pandemic. Such conditions, even when subclinical, tend to be a product of personal and predispositional factors, as well as shared cultural influences, including religious, literary, film, and gaming, all of which can lead to emotional and less than rational responses. They can render people vulnerable to engage in implausible conspiracy theories about the causes of illness and governmental responses to it. They can also lead people to give credence to simplistic and unscientific misrepresentations about medications and devices which are claimed to prevent, treat or cure disease. In turn such vulnerability creates predatory opportunities for the unscrupulous. This article notes the eruption of quackery during the 1889–1892 Russian Flu and the 1918–1920 Spanish Flu and the emergence during 2020 of spurious claims during the COVID-19 pandemic. It identifies consumer protection strategies and interventions formulated during the 2020 pandemic. Using examples from the United States, Japan, Australia and the United Kingdom, it argues that during a pandemic there is a need for three responses by government to the risks posed by conspiracy theories and false representations: calm, scientifically-based messaging from public health authorities; cease and desist warnings directed toward those making extravagant or inappropriate claims; and the taking of assertive and well publicised legal action against individuals and entities that make false representations in order to protect consumers rendered vulnerable by their emotional responses to the phenomenology of the pandemic.

“We see death coming into our midst like a black smoke, a plague which cuts off the young, a rootless phantom which has no mercy for fair countenance. Woe to me is the shiling of the armpit...It is the form of an apple, like the head of an onion, a small boil that spares no-one. Great is its seething, like a burning cider, a grievous thing of ashy colour...They are similar to the seeds of black peas, broken

fragments of brittle sea coal...cinders of the peelings of the cockle weed, a mixed multitude, a black plague like half pence, like berries...” Ieuan Gethin, Wales (c1390-c1470).

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1. Introduction

When pandemics manifest, novel and sometimes unscientific ideas proliferate as to how they can be prevented, treated and cured. Conspiracy theories can propagate (Uscinski and Enders, 2020; Anderson et al., 2020; Taylor, 2019); as Douglas has observed, “People have an epistemic need to know the truth and they also have an existential need to feel safe. In times of crisis these needs are unmet so conspiracy theories can seem appealing” (Knapp, 2020; Van Prooijen & Douglas, 2018).

There can be other consequences too. Anxiety, fear and the beguiling temptations of a vulnerable patient group provide the unscrupulous with incentives for lucrative quackery and exploitation. During a pandemic, fuelled by alarmist saturation publicity, and propagated by social media, the contagion of fear stalks alongside the disease itself (Debiec, 2020; Taylor, 2019; Honigsbaum, 2009; Honigsbaum, 2020), resulting in a preparedness on the part of a cross-section of patients or potential patients to panic, to suspend rationality and to invest hope in unlikely offerings of prophylactic agents, treatments and cures (Taylor, 2019). In addition, during a pandemic more people than normal are spending time at home searching online for answers to the threats about which they have read or about which they have seen reports on television. In such a context false claims, misinformation narratives and rumour-mongering on social media can achieve high levels of currency. It is important for government messaging to work against fears, dread (Honigsbaum, 2013) and anxieties. False claims can delay treatment-seeking and promote reckless behaviour that may result in deaths (Izugarra and Obiyan, 2020). It is also essential for the community to be provided promptly and consistently with comprehensible, scientifically-based information so as to make sound therapeutic decisions in their own and the community's best interests (Garrett, 1995; Garrett, 2000). Citizens need to be protected against the misrepresentations and false facts (Ball and Maxmen, 2020) published by unethical purveyors of spurious or unproven treatments and medical instruments.

This article contextualises inappropriate representations about preventing, treating and curing COVID-19 within the historical backdrop of quackery and charlatanry during previous pandemics. It reviews the extent of false claims in the early stages of the COVID-19 pandemic and reviews legal responses taken in diverse countries to protect patients against unscientific overtures and promises about treatments, remedies and preventative options. It argues that the combination of robust consumer protection measures and ongoing publicity from public health authorities is critical for the protection of members of the community who may not be in a position to exercise medico-scientific discernment in their own best interests.

2. Pandemic fears, cultural influences and vulnerabilities

Death engages multiple triggers for anxiety and fear (Menzies, Menzies, & Iverach, 2018) but pandemics carry particularly emotive connotations – not just because they bring with them the prospect of terrible numbers of fatalities. Our sense of trust is challenged by what is liable to be a pandemic of fear – not only are we afraid of the emerging infection but we become fearful of those around us as it may be they who are the sources of potential transmission of a fatal infection to us (Strong, 1990: 293). As Taylor (2019: 5) has observed, pandemics are ubiquitously disruptive: they “are associated with a score of ... psychosocial stressors, including health threats to oneself and loved ones. There may be severe disruptions of routines, separation from family and friends, shortages of food and medicine, wage loss, social isolation due to quarantine or other social distancing programs, and school closure.” In addition, hospital and medical facilities can break down under the pressure of patient numbers to which they cannot cater. There can be a feeling that the fabrics of our communities are buckling and social structures are faltering under the pressure of the medical crisis.

A pandemic arises from virulent pathogens (Shah, 2016: 206) and exposure in significant part is involuntary. It can be fatal for any given person, the virus is not visible, and it is hard to prevent and problematic to treat effectively. During a pandemic citizens are particularly dependent on government authorities for information, guidance and protection but the ability of such authorities to manage the risk to the community often does not always command universal confidence (Lu, 2015). Non-compliance with governmental exhortations and even orders can exacerbate the levels of transmission risk. Media treatment and some authors' accounts can be framed in a way that unhelpfully generates panic. An archetypal example of such anxiety generation occurred when Preston (1995); Towers, Afzal and Bernal, 2015 wrote of the Ebola virus transforming “virtually every part of the body into a digested slime of virus particles.” (see too Quammen, 2014; 46; Preston, 2009). Perceptions of the relative impotence of doctors in the face of a pandemic can propel some who may already have been suspicious of mainstream medicine to become mistrustful and disillusioned with it and to search for other options, even if from a rational perspective they are unlikely to be efficacious and they may be manifestly unscientific.

For some years virologists have spoken apocalyptically about the potential for a plague that will endanger the viability of the human race; Larry Brilliant (Brilliant, 2006) in a 2006 TED Talk, for instance, related how in a survey he undertook of leading epidemiologists 90% said they thought there would be a catastrophic pandemic in their lifetime in which a billion people would become ill and up to as many as 165 million people would die, accompanied by a global recession (see too Shah, 2016). In short, pandemics are the domain of linguistic hyperbole, unhelpful predictions of a viral Armageddon, and a forum for anxiety-inducing prognostications.

As Sontag (1988: 41–42) observed in *Illness as Metaphor*:

Nothing is more punitive than to give a disease a meaning — that meaning being invariably a moralistic one. Any important disease whose causality is murky, and for which treatment is ineffectual, tends to be awash in significance. First, the subjects of deepest dread (corruption, decay, pollution, anomie, weakness) are identified with the disease. Then, in the name of the disease (that is, using it as a metaphor), that horror is imposed on other things. The disease becomes adjectival.

Pandemic fear creates black humour (Brig, 2020) but it also makes people hyper-vigilant; it “impels them to notice things they might not otherwise have noticed; to pay attention to certain associations and ignore others; to remember prophecies they might previously have dismissed as absurd.” (Spinney, 2017: 75). Mediaeval chroniclers relate how bizarre sightings of unnatural phenomena occurred in the period leading up to the onset of the Black Death, giving a fillip to public panic and the miasma theory of pandemics – that a miasma (bad air) unleashed by God was the cause of the disease.

Scapegoating and discrimination too are a common response in face of a pandemic (McNeil Jr, 2009; Cooke, 2015). During the Antonine Plague of 166 CE, for instance, there was an eruption of persecution of Christians who were blamed for the plague by reason of their rejection of local gods, their blasphemies and their indulgence in black magic (Seaman, 2018). Between 1347 and 1352 during the Black Death there were multiple attacks on members of social minorities, including those suffering from leprosy, mental illness and foreigners (Colet, Santiveri, Ventura, Saula, & Galdacano, 2014). They were an example of a fear-induced reaction. In anticipation of, or shortly after, outbreaks of plague, too, Jews were accused of poisoning food, wells and streams. They were tortured into confessions, rounded up in city squares or synagogues, and exterminated (mostly by burning) en masse (Winkler, 2005; Cohn Jr, 2007; Jedwab, Johnson, & Koyama, 2019; McNeil Jr, 2009). More than 200 Jewish communities across Europe were devastated during the years of the Black Death, in particular in Spain and Germany (Cohn Jr, 2007; Einbinder, 2018). In more recent times discrimination in the form of assaults, insults and business boycotts has

taken place against Chinese communities (even during its earliest phases in Italy), fanned by claims that China was responsible for the COVID-19 pandemic (Liu, 2020) and references to descriptors such as the “Chinese Flu” and “Kung Flu” (Restuccia, 2020; Sojo & Bapuji, 2020)).

Fear is apt to generate stress responses (Bennett, 1998; Meisenhelder & LaCharite, 1989), to which some persons are more predisposed than others by reason of a combination of genetic, psychological, biological, educational and situational factors. In face of the pressures of a pandemic we are all vulnerable but some amongst us have especial psychological frailties as a result of rigidities of personality, particular levels of fearfulness (sometimes arising from prior traumatic experiences) or a propensity to anxiety that can be exploited. This is the more pronounced in an era in which all forms of media, including social media, make information, including alarmist and stress-inducing information, the more accessible and ubiquitous. It has been suggested that the speed of social media creates an “echo chamber” of skepticism and conspiracy theories (Gorter, 2020). Those who are less educated, who have disabilities (see Kavanagh, 2020) or who are socially isolated by reason of limited linguistic facility in their country of residence have additional vulnerabilities in terms of their ability to understand and process government-issued information. This can leave them with impairments of health literacy (at least in respect of the pandemic) (Paakkan & Okan, 2020), being emotionally and informationally isolated, and prone to make decisions based upon fear and rumour.

The diathesis stress model is useful in this context. It postulates that if the combination of predisposition and stressor exceed a threshold, this can result in the development of pathology (Lazarus, 1993). However, at a subclinical level vulnerabilities can render people at risk for poor decision-making and inhibiting their capacity for clear thinking and the analysis of available information about how they should respond to risk. Pandemics generate high levels of anxiety, paranoia, stigmatisation and xenophobia (Taylor, 2019), with the potential for maladaptive decision-making. Such responses can be exacerbated by cultural, educational and religious overlays that are apt to engender confusion, guilt and anxiety, as well as by emotive tropes encountered in a variety of contexts. Religion, literature, films and board and online games are a significant part of our shared cultural experience that frame our expectations and influence our responses to reality (Dehority, 2020).

For instance, in the Old Testament of the Bible plagues and pestilences (which also ravaged the ancient world) are depicted as a punishment by an often merciless God and a retribution for the commission of sins (see eg Exodus 9: 14; Numbers 11: 33; 1 Samuel 4: 8; Psalms 89:23; Isaiah 9: 13). As Huremović (2019: 7) has observed: “Throughout the Biblical context, pandemic outbreaks are the bookends of human existence, considered both a part of nascent human societies, and a part of the very ending of humanity.” The *Bhagavad Purana* warned villagers to flee their dwellings as soon as dead rats were seen, as dead rats were a harbinger of death in humans (Blaser, 1998; Liston, 1924). In Islamic tradition there are multiple exhortations as to how a person must respond in face of the danger of contagion – for instance, the Holy Prophet recognised the urgency of preventative responses and preached the importance of travel bans and quarantine in places contaminated with disease in order to mitigate the spread of illness: “If you hear of an outbreak of plague in a land, do not enter it; and if the plague breaks out in a place while you are in it, do not leave that place.” (*Sahih al-Bukhari*).

Similar depictions are found in literature. It was Homer who first used the term *epidemia* to describe those returning to Greece while Hippocrates employed it in a medical sense to refer to “that which circulates or propagates in a country”. This paved the way for awareness of the potential for a disease to spread uncontrolled from one community to another. Thucydides recounted the fearfulness of the plague in Athens between 429 and 426 BCE and the breakdown of law and order:

there was no previous record of so great a pestilence and destruction of human life. The doctors were unable to cope, since they were treating the disease for the first time and in ignorance: indeed, the more they came into contact with sufferers, the more liable they were to lose their own lives. No other device of men was any help. Moreover, supplication at sanctuaries, resort to divination, and the like were all unavailing. In the end, people were overwhelmed by the disaster and abandoned efforts against it. (*History of the Peloponnesian War*, II. viii.5–12).

The better part of a millennium later, Procopius in his account of the Justinian Plague in 543 CE (*History of the Wars*, II: 22), which the Emperor himself termed “God’s Education”, and John of Ephesus called “The Chastisement” (Pearce, 2017), commented that “the whole human race came near to being annihilated”.

The accounts of both Chaucer (1343–1400) in *The Canterbury Tales* (“Ther cam a privee thief men clepeth Deeth, That in this contree al the peple sleeth”) and Boccaccio (1313–1375) in *The Decameron* (“In this sore affliction and misery of our city, the reverend authority of the laws, both human and divine, was all in a manner dissolved and fallen into decay, for (lack of) the ministers and executors thereof, who, like other men, were all either dead or sick or else left so destitute of followers that they were unable to exercise any office, wherefore everyone had license to do whatever pleased him.”) postulated, amongst other things, that fear of contagion increases vices such as avarice, lust and corruption. Both Alessandro Manzoni (1785–1873) in *The Betrothed* (*I Promessi Sposi*) (1827, revised 1842) and *History of the Column of Infamy* (*Storia della Colonna Infame*) and Daniel Defoe (1659–1731) in *The Diary of a Plague Year* catalogued reactions of anxiety and desperation within Milan and London respectively during pandemics. Manzoni described the fears of poisoning arising from scaffolding carried by workers in a cathedral in *The Betrothed* and in *A History of the Column of Infamy* the belief that the plague had been caused by the actions of the evil (“the untori”) who were possessed by the devil, resulting in the execution of the innocent and erection of a column in Milan to commemorate the imposition of death on two “greasers”.

In *The Last Man* Mary Shelley (1797–1851) portrayed the need of the central character to stay away from others for fear of being infected and Edgar Allan Poe (1809–1849) meditated on the role of The Plague in being a purveyor of death. Similarly, in *The Scarlet Plague* published in 1912 Jack London (1876–1916) portrayed a post-apocalyptic scenario in 2073 following the spread of the Red Death, in which an uncontrollable pandemic had depopulated the world 60 years before. Albert Camus’ *La Peste* (1947), in which “The plague was posting sentries at the gates and turning away ships” was a critique of “repugnant materialism” as well as a disturbing account of cohabitation with death. He described reactions of complacency that placed all at risk (“Many continued hoping that the epidemic would soon die out and they and their families be spared. Thus they felt under no obligation to make any change in their habits, as yet. Plague was an unwelcome visitant, bound to take its leave one day as unexpectedly as it had come.”) and anxious fears about the threat to come (“A pestilence isn’t a thing made to man’s measure; therefore we tell ourselves that pestilence is a mere bogey of the mind, a bad dream that will pass away. But it doesn’t always pass away and, from one bad dream to another, it is men who pass away”).

Multiple films have portrayed the catastrophic impact of epidemics and, in particular, pandemics. As a genre they have been described as “reel bio-horror” films (Sutton (2014). *The Andromeda Strain* (1971), based on the novel by Michael Crichton, for instance, depicts the spread of a deadly organism of extraterrestrial origin. *Death in Venice* (*Morte a Venezia*) (1971) relates the story of a composer who travels to Venice for health reasons but the city becomes stricken by cholera and the health authorities do not inform holiday-makers of what is happening for fear of the consequences. In *Outbreak* (1995) the setting is a fictional Ebola-form of Motaba virus in Zaire which then spreads to a California coastal village via a capuchin monkey which is host to the virus. The plot focuses on strategies, including sinister military interventions, and

conspiracies to conceal the virus so it can be used as a biological weapon. *Fatal Contact* (2006) portrays an American businessman who becomes infected with a mutated bird flu virus and brings it back to the United States. It spreads around the world and riots erupt with armed mobs attempting to hijack vaccines and the pandemic continues to mutate causing further international waves of panic. *Contagion* (2011) portrays the medico-scientific quest for a cure to a virus transmitted by respiratory droplets and fomites. It includes a sub-plot in which the Jude Law character, a blogger, spreads rumours about forsythia (Wang, Xia, Liu, et al., 2018), a herbal treatment he claims works to cure the virus. *The Last Days (Los últimos días)* (2013) centres around a trend of agoraphobia, and “the Panic”, where people die if they leave shelter. *Extinction* (2015) goes a step further, portraying a post-apocalyptic world in which a virus has turned the populace into zombies. The series of *Resident Evil* horror films starting in 2002 and followed by sequels in 2004, 2007, 2010, 2012 and 2016 is based on attempts to control the spread of the T-virus that has escaped from a secret underground genetic research facility. In 2015 *Containment*, set in a Southampton apartment block, explores a world patrolled by figures in Hazmat suits keeping people within their apartments which no longer have electricity, water or contact with the outside world, repeating the refrain, “Please remain calm. The situation is under control.”

There are many other popular exposures to the phenomenon of pandemics which generate associations of fear, panic and the imminence of human annihilation. For instance, the popular board game, *Pandemic* (2008), was based on the premise that four diseases had broken out in the world, each threatening to wipe out a region. The game accommodates two to four players, each playing one of seven possible specialists: dispatcher, medic, scientist, researcher, operations expert, contingency planner, and quarantine specialist. Through the combined effort of all the players, the goal is to discover all four cures before any of several game-losing conditions (global catastrophe) are reached.

Computer games about viral outbreaks are also prevalent and a potentially significant influence on the generation of gamers. For instance, in *Deus Ex* (2000) a lethal pandemic, “the Gray Death” has ravaged the population. There is no cure but a synthetic vaccine, Ambrosia, can nullify the effects of the virus but is in short supply. Because of its scarcity, Ambrosia is available only to those deemed “vital to the social order”, and finds its way primarily to government officials, military personnel, the rich and influential, scientists, and the intellectual elite. With no hope for the common people of the world, riots occur worldwide, and some terrorist organizations have formed with the professed intent of assisting the downtrodden. In *The Last of Us* (2013) an outbreak of a mutant Cordyceps fungus has ravaged the United States, transforming its hosts into aggressive creatures known as “The Infected”. It is an action adventure survival horror game. Civilisation has been decimated by the infection and survivors live in heavily policed quarantine zones, independent settlements and nomadic groups. Joel works as a smuggler and his task is to smuggle Ellie who has been infected but it is believed her community may have a cure. *Plague Inc: Evolved* (2014) is a real-time strategy simulation game where the player creates and evolves a pathogen in an effort to destroy the world with a deadly virus. It and its predecessor, *Plague Inc* (2012), have been banned in China. In *A Plague Tale: Innocence* (2019) the player has to battle hordes of ravenous rats in 1348 Aquitaine to survive the onset of plague. Tom Clancy's *The Division* (2016) is an online game set in a near future New York City in the aftermath of a viral pandemic which has been planted on banknotes. Its successor, Clancy's *The Division 2* was released in March 2019. It is set in a near-future Washington DC in the aftermath of a potent strain of a smallpox pandemic engineered in New York City by an environmental terrorist.

In Christian tradition, world literature, film, board games and computer games pandemics have been vividly and emotively portrayed in diverse ways, requiring urgent prophylactic or avoidance responses, all of which are redolent with fear and paranoid ideation. Thoughts of

the reader, the viewer and the gamer are turned toward the potential for dire outcomes. Sometimes offence caused to the Godhead is mooted as a cause for the threat. Frequently doubts are ventilated around the bona fides and effectiveness of the measures taken by government and public health authorities to contain and eradicate viruses and bacteria. Helplessness is a prominent trope and catastrophising can find expression in the form of both eschatological and apocalyptic ruminations about the consequences of the pandemic for oneself, all whom one knows, and even the future of humanity. In all contexts, global disaster is at hand; Armageddon is close. This creates a fertile field for opportunists and charlatans; as Porter (1989: 26) observed, in the face of invasions of epidemic sickness, there is desperation which in turn creates a voracious demand for a multiplicity of healers, amongst whom are quacks.

Thus, a variety of influences can combine to generate high levels of fear and anxiety, all of which can exacerbate pre-existing vulnerabilities and militate against calm and informed decision-making during a pandemic.

3. The Russian and Spanish Flu pandemics

The Russian Flu (also known as La Grippe) and the Spanish Flu have many lessons for dealing with the phenomenology of the COVID-19 pandemic, including the regulation of quacks and predatory charlatans.

3.1. The Russian Flu

The Russian Flu is often described as the first modern influenza pandemic. It took place between 1889 and 1892 and is believed to have killed more one million people (Honigsbaum, 2020), including Queen Victoria's grandson, the Duke of Clarence (Honigsbaum, 2011; McGinnis, 1988: 123–124). Newspaper advertisements touted many cures for the Russian Flu, including castor oil, bronchial inhalers and an electric battery. Quinine too was offered (McGinnis, 1988). Doctors even promoted the idea that drinking brandy and eating oysters were a key to staving off infection (Knapp, 2020).

The best known questionable remedy proposed for the Russian Flu, though, was the Carbolic Smoke Ball which consisted of a rubber ball filled with powdered carbolic acid (Snell, 2001). The patient squeezed the ball sending a puff of acidic smoke up a tube inserted into the nostrils. It was advertised with testimonials by well known personalities, as was common at the time in the *Pall Mall Gazette*, offering a £100 reward to anyone using it correctly who then contracted influenza (McGinnis, 1988: 124). The purveyor of the Smoke Ball deposited £1000 in the Alliance Bank in Regent Street to show the money was there (Coleman, 2009).

The Carbolic Smoke Ball prophylaxis had a notorious legal outcome. Louisa Elizabeth Carlill purchased a ball from a chemist in Oxford Street, London, and used it, as directed, three times a day for nearly two months. However, she contracted the flu. She claimed her “reward” but was rebuffed by the Carbolic Smoke Ball Company which replied to correspondence from her husband, who had trained as a solicitor, saying that, if used properly, it had total confidence in its product. It failed to return her money. This resulted in her suing the Carbolic Smoke Ball Company in the High Court for breach of contract. She succeeded (*Carlill v Carbolic Smoke Ball Company*, 1892) but the Company appealed to the Court of Appeal, arguing that their advertisement was “mere puff”. However, this argument was rejected on the basis that the Company had deposited £1000 to show its seriousness. As McGinnis (1988: 127–128) has observed:

a legal decision supporting that type of argument would only serve to encourage the telling of even more outrageous untruths. Advertisers could attempt with impunity to trap consumers with progressively bigger lies and then avoid liability by laughing at the gullibility of the gulled. Instead, the court said that it was going to

look at the contract as printed and to interpret it according to its plain meaning, on the sensible assumption that what is exactly what Mrs. Carlill and other buyers like her would have done.

Secondly, the Company maintained that it had no way of ascertaining whether Mrs. Carlill had followed its instructions correctly. This contention was rejected by the Court of Appeal out-of-hand (*Carlill v Carbolic Smoke Ball Company*, 1893). Thirdly, the Company argued that an offer such as it had made could not be understood to have been made to the whole world. This argument too failed with the Court of Appeal finding that the offer was clear and to a group of consumers, and anyone fulfilling its terms could be deemed to have accepted the offer. Finally, the Company argued that the requisite consideration for a contract did not exist. However, the Court of Appeal rejected this too, concluding that any use of the smoke ball would be likely to promote sales and thus be of value to the Company. Thus, Mrs. Carlill's use of the smoke ball constituted valuable consideration.

The outcome of the decision was an emphatic endorsement of contract law as a means by which the vulnerable could be protected against false representations, which were not honoured, during a pandemic.

The editors of the *Lancet* exulted:

We are glad to learn that in spite of the ingenuity of their legal advisers the defendants have been held liable to make good their promise. People who are silly enough to adopt a medicine simply because a tradesman is reckless enough to make extravagant promises and wild representations as to its efficacy may thank themselves chiefly for any disappointment that ensues. Still for this folly, which is only foolish and nothing worse, it is possible to feel sympathy when the disappointment comes. It is a pleasant alternative to learn that the dupe has been able, as in the present instance to enforce a sharp penalty and that the process of reaping a harvest from the simplicity of one's neighbours is attended with dangers of miscarriage which must materially diminish its attractiveness in the eyes of those people who supply the popular demand for quack medicines (Editorial, 1892; see too Simpson, 1985).

3.2. The Spanish Flu

The Spanish Flu is believed to have infected close to one third of persons on the planet between 1918 and 1920, with estimates that it killed between 60 and 500 million persons (Kent, 2013; Spinney, 2017; Honigsbaum, 2020). Those fearful of contracting the influenza and those suffering its symptoms sought the assistance of orthodox medicine but conventional medical practitioners had little in their pharmacopoeia to assist. Clinical drug development was in its early stages, few human trials had been conducted and double blind, placebo-controlled trials were almost unknown. Aspirin and drugs such as quinine, known for its utility with malaria, were tested, as were arsenic, digitalis and strychnine concoctions, as well as a variety of alcohol-based remedies. A host of alternative healers emerged around the world. As Spinney (2017: 125) records:

Witch doctors in the hills of India moulded human figures out of flour and water and waved them over the sick to lure out evil spirits. In China, besides parading the figures of dragon kings through their towns, people went to public baths to sweat out the evil winds, smoked opium and too yin qiao san – a powdered form of honey-suckle and forsythia that had been developed under the Qing for 'winter sickness'.

Catharine Arnold (2018: ch 12) has documented how willingness to try anything during the Spanish Flu era was accompanied by a proliferation of advertisements in the West for influenza-related remedies:

From the *Times of London* to the *Washington Post*, page after page was filled with dozens of advertisements for preventive measures and over-the-counter remedies. "Influenza!" proclaimed an advert

extolling the virtues of Formamint lozenges. "Suck a tablet whenever you enter a crowded germ-laden place." Another advertisement announced "as Spanish Influenza is an exaggerated form of Grip," readers should take Laxative Bromo Quinine in larger doses than usual, as a preventive measure. For those who had already succumbed, Hill's Cascara Quinine Bromide promised relief, as did Dr. Jones's Liniment, previously and mysteriously known as "Beaver Oil" and intended to provide relief from coughing and catarrh. Demand for Vick's VapoRub, still popular today, was drummed up by press adverts warning of imminent shortages.

Carbolic soap was touted in the British Midlands as a disinfectant and cleanser. Various forms of alcohol too were promoted as remedies for influenza:

In Denmark and Canada, alcohol was only available by prescription, while in Poland brandy was regarded as highly medicinal. One brave soul in Nova Scotia recommended fourteen straight gins in quick succession as a cure for Spanish flu. The result of this experiment was unknown; if the patient had survived he had doubtless forgotten the proceedings entirely. In Britain the Royal College of Physicians stated that "Alcohol Invites Disaster," a conclusion which was ignored by many. The barman at London's Savoy Hotel created a new cocktail, based on whisky and rum, and christened it "the Corpse Reviver!" (Arnold, 2018, ch 12).

Consumer protection by governments during the Spanish Flu was only in its infancy and relatively few measures were adopted by the state to inhibit false and misleading representations about medical products.

4. Coronavirus Quackery

Lee (2014) has recorded how during previous coronaviruses quackery and folk remedies have proliferated. For instance, during the outbreak of SARS during 2003 there were reports in China that people had hired sorcerers, lit firecrackers, burned fake money and engaged in a variety of quasi-magical rituals to seek protection. There was even a rumour which propagated that a miraculous child with the power of speech from birth had prophesied that green bean soup would prevent infection. That led to panic-buying of mung beans (Lee, 2014).

During the COVID-19 crisis in 2020 spurious remedies were championed from early in the pandemic in many countries. The issue became sufficiently serious that as early as 15 February 2020 the World Health Organization Director-General, Tedros Adhanom Ghebreyesus, identified that the world was not "just fighting an epidemic; we're fighting an infodemic", a component of which related to the propagation of conspiracy theories, bogus cures and misinformation about the pandemic. The World Health Organization responded by publishing an extensive list of "myth-busters", endeavouring to provide counter-information to issues such as:

- Whether there are any drugs licensed for treatment or prevention of COVID-19;
- Whether adding pepper to food prevents or cures COVID-19;
- Whether house flies or mosquitoes can transmit COVID-19;
- The dangers and ineffectiveness of introduction of bleach or other disinfectants;
- The dangers of drinking methanol, ethanol or bleach;
- The inability of 5G networks to spread COVID-19;
- Exposure to the sun or to temperatures higher than 25C does not prevent coronavirus disease;
- The fact that being able to hold breath for more than 10 s does not mean a person is free of COVID-19;
- Drinking alcohol does not prevent COVID-19;
- Hot weather, hot baths, cold weather and snow cannot kill the new coronavirus
- Hand-dryers are not effective in killing coronavirus;

- The use of ultra-violet lamps to disinfect hands and other areas of skin;
- The detection of COVID-19 by thermal scanners;
- The utility of vaccines against pneumonia in relation to COVID-19;
- The effectiveness of regular nasal rinsing with saline against coronavirus;
- The efficacy of garlic as a prophylactic against COVID-19;
- The safety of younger people to COVID-19;
- The utility of antibiotics against the new coronavirus;
- The existence of any specific medications against COVID-19 ([World Health Organization, 2020](#)).

Particular risks are posed when market-surveillance on bogus cures is less available in the course of a pandemic. As Delese Darko, the Chief Executive of Ghana's Food and Drug Authority, has observed, in an atmosphere of desperation to explore unorthodox cures, in spite of the Lomé initiative (by which many countries in January 2020 pledged to prevent, detect and respond to substandard and falsified medical products) (FDA, *stakeholders to make Ghana unfavourable destination for fake drugs*) (2017)) "... there could be an influx across porous borders of substandard medical products – including those for COVID-19." ([Knott, 2020](#)). This has led to fabricated versions of a number of products, including chloroquine.

Another issue is the availability of what have been promoted as COVID-19 cures, even including blood of allegedly recovered patients ([Iggulden, 2020](#)), marketed on the Dark Web ([Broadhurst, Ball, & Jiang, 2020](#); [Martin, 2020](#)). Although it appears that as of May/June 2020 such forms of promotion and sale were not extensive, they are particularly difficult to regulate effectively. There have been some signs that even the Dark Web has been prepared to self-regulate against false cures for COVID-19 ([Cuthbertson, 2020](#)) but of its nature the Dark Web is largely unregulated from the outside and its encrypted environment is an ideal vehicle for the unscrupulous to exploit the fearful, the desperate and the indiscriminating ([Shah, 2020](#)).

A troubling variety of false treatments for COVID-19 has been touted by persons of influence, including politicians and religious figures in the months after the commencement of the pandemic ([Graham-Harrison, Phillips, Ellis-Peterson, & Burke, 2020](#)). It has been suggested that "prominent public figures continue to play an outsized role in spreading misinformation about COVID-19." ([Brennen et al., 2020](#)). In the United States President Trump's unscientific enthusiasm for hydroxychloroquine, remdesivir, azithromycin, bleach and ultra-violet light is one example. In Brazil President Jair Bolsonaro went a step further and ordered the distribution of hydroxychloroquine ([O'Grady, 2018](#)), prompting a run on "quina tea" ([Langlois, 2020](#)) while in Belarus President Alexander Lukashenko propounded the idea of a vodka cure ([Bennetts, 2020](#)). In Madagascar President Andry Rajoelina endorsed the benefits of *Artemisia annua* (sweet wormwood), a herbal remedy promoted as a treatment for COVID-19, which prompted orders from Equatorial Guinea, Guinea-Bissau, Niger and Tanzania, ([Finnan, 2020](#); [Nordling, 2020](#); [Hirsch, 2020](#)), prompting denunciation by the World Health Organization Regional Office for Africa that it lacked a scientific basis ([Vaughan, 2020](#)). In Ghana a popular Islamic cleric, numerologist and philosopher, Mallam Sham-una Uztar Jibril, proclaimed that he had identified a cure to COVID-19 in (unspecified) roots and leaves found only in Saudi Arabia and Afghanistan ("I Have Discovered the Cure to the Deadly Coronavirus – Popular Islamic Cleric, 2020).

In Iran it was reported that a Muslim cleric advocated the application of what he called the "Prophet's Perfume" under the nose of coronavirus patients in a northern Iranian hospital in Gilan Province. In Korea the River of Grace Community Church sprayed saltwater in parishioners' mouths as a prophylactic agent ([Shim, 2020](#)). Cow urine as a COVID-19 cure was promoted by a Member of the Legislative Assembly in Assam in India ([Nath, 2020](#)). Also in India hundreds of people attended a "gaumutra party" sponsored by the Hindu Mahasabha and in

March 2020, BJP MLA in Assam Suman Haripriya introduced a variation, propagating that cow dung could also destroy COVID-19 ([Kundu, 2020](#)).

[Nayak \(2020\)](#) has described the rise of one form of alternative remedy purveyors in India during the COVID-19 crisis:

The sugar-pill quacks are having their moment in the sun. Universally they have prescribed Arsenicum Album, of 30C potency, as prophylaxis for Covid-19. While this level of potency would ensure that not a single molecule of the allegedly active ingredient would be present in a given dilution (1×10 to the power of 30), their claims have been accepted by the government authorities, including highly-placed institutions such as the Nuclear Power Corporation of India and the government of Kerala—which has otherwise done a good job of containing the virus but has distributed strips of these sugar pills all over the place.

When the sugar pill dispensers have put in their might, can the vendors of roots, plants and spices be far behind? Ayurveda has stepped in with its own versions of grandma's soup. They advise you to:

1. Drink warm water throughout the day.
2. Practice yogasana, pranayama and meditation for three minutes a day.
3. Consume spices such as zeera (cumin), coriander, turmeric and garlic.

Unani and Siddha have also contributed: the Tamil Nadu government has especially advised government servants to consume Zinc, Vitamin C (neither is a proven prophylactic or treatment) along with the Siddha herbal powders, nilavembu kudineer and kabasura kudineer.

Other coronavirus remedies available from various "holistic" practitioners have included oil of oregano and "Spirit Dust," Oleandrin ([Quave, 2020](#)), an "adaptogenic" concoction of powdered mushrooms and roots from the Los Angeles cult brand Moon Juice ([Pan, 2020](#)). In Indonesia there have been rushes on traditional herbs and medicinal plants (jamu) such as turmeric, curcumin, lemongrass and ginger to strengthen the immune system. This was given a fillip by the fact that President Widodo informed an agricultural and food conference that he was drinking a herbal elixir of red ginger, lemongrass and turmeric three times a day to help to prevent infection by the coronavirus ([Stein, 2020](#)). His Minister for Home Affairs encouraged people to eat more bean sprouts and broccoli ([Weydmann et al., 2020](#)).

In the United Kingdom, prophylactic suggestions that appeared on the Stop Mandatory Vaccination website related to inclusion of elderberry syrup, placing sliced onions on the bottom of feet and rubbing the back with lemon and lavender oil to draw the coronavirus away from the brain. Colloidal silver, which can lead to skin turning a light bluish-grey, is another treatment that has been promoted online ([Proctor, 2020](#)). Theories have been propagated on social media too that China created COVID-19 as a bio-weapon to attack the United States ([Tucker, 2020](#)) and that the 5G network's ability to control the oxygen supply of patients has created the virus ([Anderson, 2020](#); [Hamilton, 2020](#)).

The consequences of bizarre conspiracy theories and the promotion of unscientific remedies can have very serious consequences. In Iran during early 2020 it was reported that at least 200 citizens died and many others were hospitalised after drinking bootleg or modified industrial strength alcohol because of a rumour that its consumption would make them immune to COVID-19. Iranian media also reported that a five year old boy had gone into a coma and lost his sight after being given tainted alcohol by his family in the belief it would protect him against COVID-19 ([Esfandiari, 2020](#)).

A man died in the United States, too, after taking a form of chloroquine — hailed by President Donald Trump as a potential "gift from God remedy" ([Levine, 2000](#)) — he took a form of the drug his wife had used to treat her pet fish. His wife told NBC News, "I saw it sitting on the back shelf and thought, 'Hey, isn't that the stuff they're talking about on TV?'" "Banner Health, a non-profit health care provider based

in Phoenix, said on its website that “a man has died and his wife is under critical care after the couple, both in their 60s, ingested chloroquine phosphate, an additive commonly used at aquariums to clean fish tanks.” (Fake Cures, Risky Rumors: Virus Misinformation Hits Home, 2020).

It is evident that the promotion of unscientific strategies for the prevention, treatment and cure of COVID-19 has been a global phenomenon and that a percentage of the time it has had highly undesirable and sometimes fatal consequences.

5. Consumer protection regulation

Two strategies have been deployed internationally to counter gullibility and lack of discernment in the community arising out of fears of COVID-19: provision of scientifically based health information, such as described above from the World Health Organization, and the invocation of a variety of forms of consumer protection laws (developed since the time of the Spanish Flu) to prevent the gullible and the vulnerable from being duped by advertising of products or devices which have not been rigorously tested and demonstrated to be efficacious, hope, rumour and expectation notwithstanding.

5.1. United States initiatives

In the United States such consumer protection efforts have been pursued with energy but a wave of e-commerce sites has attempted to attempted to circumvent them, selling “phantom” and bogus products which have made false or exaggerated claims about their capacity to counter COVID-19 (Keller and Lorez, 2020). As early as the day after the World Health Organization designated COVID-19 a pandemic, New York's Attorney-General sent a cease-and-desist letter to a number of vendors who were passing off colloidal silver as a treatment. They included the Silver Edge Company (Letter, Officer of the Attorney General, 2020), whose Micro-Particle Colloidal Silver Generator (\$US250) had already sold out and Dr. Sherrill Sellman, a naturopathic doctor with a criminal history (see Aratani, 2020), who, during a screening of the Jim Bakker Show, when asked about whether his Silver Solution would be effective against the corona virus, responded, “Let's say it hasn't been tested on this strain of the coronavirus, but it's been tested on other strains of the coronavirus and has been able to eliminate it within 12 hours.” (Letter, Officer of the Attorney General, 2020).

On 12 March 2020 a similar cease and desist letter was sent to Alex Jones who through his website had been marketing and selling toothpaste, dietary supplements, creams, and several other products as treatments to prevent and cure the coronavirus: “Jones fraudulently claims that these products are a ‘stopgate’ against the virus and that the United States government has said his *Superblue Toothpaste* ‘kills the whole SARS-corona family at point-blank range.’” (Letter, Officer of the Attorney General, 2020). The Attorney General Letitia James stated: “As the coronavirus continues to pose serious risks to public health, Alex Jones has spewed outright lies and has profited off of New Yorkers' anxieties. ... Mr Jones' public platform has not only given him a microphone to shout inflammatory rhetoric, but his latest mistruths are incredibly dangerous and pose a serious threat to the public health of New Yorkers and individuals across the nation. If these unlawful violations do not cease immediately, my office will not hesitate to take legal action and hold Mr. Jones accountable for the harm he's caused. Any individual, company, or entity that deceives the public and preys on innocent civilians will pay for their unlawful actions.” (Letter, Office of the Attorney General, 2020).

In addition, the federal Justice Department directed all 94 United States attorneys to prioritise the investigation and prosecution of coronavirus fraud schemes, with the public able to report such frauds to a National Center for Disaster Fraud hotline (Department of Justice, 2020). By mid-April Americans were reported to have communicated about \$US12 million in COVID-19-related fraud losses (Christie and

Park, 2020). The potential was even raised for those who threatened or attempted to spread COVID-19 to be classified as having engaged in federal terrorism offences because of their use of a biological agent.

A further initiative employed was an order by the Environmental Protection Agency (EPA) in June 2020 to Amazon and eBay to stop selling pesticides that made false claims to kill the novel coronavirus. It applied to products, such as the disinfectant known as “Virus Shut Out”, as well as methylene chloride, which is hazardous and already subject to a partial ban in the United States (United States Environmental Protection Agency, 2020a). The EPA also issued an advisory in relation to products making claims to kill coronavirus, particularly disinfectants and pesticidal devices (United States Environmental Protection Agency, 2020b). Similarly, the Food and Drug Administration (Food and Drug Administration, 2020) sent multiple warning letters to website operators that they were engaging in illegal conduct for: offering for sale unapproved prescription drugs of unknown origin, safety, and effectiveness; offering prescription drugs without a prescription; offering prescription drugs without adequate directions for safe use; and offering prescription drugs without FDA-required warnings to consumers about the serious health risks associated with the prescription drug.

5.2. United Kingdom initiatives

In the United Kingdom, too, efforts have been made to quell false advertising about medications to prevent, treat and cure COVID-19. The United Kingdom's Medicines and Healthcare products Regulatory Agency (MHRA) warned the public not to be fooled by products ranging from self-testing kits to antiviral misting sprays. The MHRA announced that in the early stages of COVID-19 it had disabled nine domain names and social media accounts for selling fake coronavirus-related products, and that it was investigating five further cases. Lynda Scammell, a senior enforcement advisor to the MHRA, made the point that: “There is no medicine licensed specifically to treat or prevent COVID-19, therefore any claiming to do so are not authorised and have not undergone regulatory approvals required for sale on the UK market. We cannot guarantee the safety or quality of the product and this poses a risk to your health. The risk of buying medicines and medical devices from unregulated websites are that you just don't know what you will receive and could be putting your health at risk.” (Medicines and Healthcare Products Regulatory Agency, 2020a; Lovett, 2020).

It stated on 19 March 2020 that its annual operation in relation to the illegal online sale of medicine “identified a disturbing trend of criminals who are taking advantage of the COVID-19 outbreak by exploiting the high market demand for personal protection and hygiene products.” It also stated that:

Globally, 2,000 online advertisements related to COVID-19 were found and more than 34,000 unlicensed and fake products, advertised as “corona spray”, “coronavirus medicines” or, “coronaviruses packages” were seized. Whilst there were no coronavirus related products found to have reached UK borders on this occasion, Operation Pangea aims to tackle serious organized crime globally and the MHRA plays a big role in ensuring unlicensed medicines and medical devices are not making their way onto UK markets (Medicines and Healthcare Products Regulatory Agency, 2020a).

By May 2020 Ms. Scammell went further: “We want to caution people that products claiming to do so are not authorised and have not undergone regulatory approvals required for sale on the UK market. We cannot guarantee the safety or quality of these products and this poses a risk to your health. We have been receiving reports of ‘miracle cures’, ‘antiviral misting sprays’, antiviral medicines being sold through websites. Offering to sell unauthorised medicines is against the law.” (Medicines and Healthcare Products Regulatory Agency, 2020b).

Criminal charges have also been preferred, including by the City of London Intellectual Property Crime Unit, for fraud and unlawful manufacture of medicinal products for the treatment of COVID-19 (City of

London Police (2020); 25 March 2020; [Coronavirus: Man in Court over Fake Covid-19 Treatment Kits](#), 2020).

In addition, an investigation was launched by the Charity Commission, which regulates charities in England and Wales, as well as Trading Standards, into the Camberwell Kingdom Church that had been reported to be selling coronavirus “protection kits”. However, the Church then relaunched the kits, priced at £UK91, claiming them to be “divine cleansing oil.” (Coronavirus: [Camberwell Church Continuing to Sell Fake Covid-19 Cure](#), 2020).

5.3. Japanese initiatives

In Japan advertisements that make false or exaggerated medical claims are illegal under a law that prohibits the making of misleading representations. In addition, advertisements for uncertified products claiming to prevent or treat medical conditions are a violation of the pharmaceutical and medical device law.

In March 2020 the Consumer Affairs Agency announced that sellers of products claiming prophylactic effects against COVID-19 in online advertisements were obliged to revise their advertising. By 11 March it had conducted emergency surveillance and identified 46 items sold by 30 companies to have breached permissible advertising rules. In particular, there had been advertisements touting vitamin C and Chinese herbs as efficacious but which were neither objective nor reasonable ([Japan Govt Warns about Online Ads for ‘Anti-Coronavirus’ Goods](#), 2020). What followed were multiple raids of drugstores in an attempt to suppress the sale of quack coronavirus products.

By June 2020, concerns about the phenomenon had grown and it was being theorised that entrepreneurial e-commerce site operators were taking advantage of inadequate regulatory oversight at a time when people were staying at home and were relying more heavily on e-commerce. Surveys of infringing products showed significantly elevating availability of products making false claims on sites such as [Amazon.com](#) in Japan and Rakuten ([Kanematsu, 2020](#)). Japan's Ministry for Health made it clear that selling products as antiviral agents for use on the body, rather than as a deodoriser or cleanser, violates pharmaceutical and medical device laws and the Tokyo Metropolitan Government, which monitors legal compliance for commercial products sold in the capital and provides guidance where necessary, provided clear messages to a similar effect. However, research by the *Nikkei Asian Review* found that a significant number of e-commerce operators were circumventing the law by using suggestive language connoting antiviral efficacy for their products ([Kanematsu, 2020](#)).

5.4. Australian initiatives

In Australia the major regulator of therapeutic goods and devices is the Therapeutic Goods Administration. During the first half of 2020 it was active to inhibit the making of false representations about the efficacy of goods to prevent, treat and cure COVID-19. For instance, on 24 March 2020 it published an advisory that:

Unfortunately, some people are taking advantage of the current situation by advertising products that claim to prevent or cure COVID-19.

Claims being made include unregistered products that ‘kill COVID-19’, air purifiers that help fight the coronavirus, complementary medicines that prevent the virus, and a medical device that treats a number of serious diseases including COVID-19, HIV AIDS and cancer ([Therapeutic Goods Administration, 2020a](#)).

Therapeutic goods are broadly defined by s3 of the *Therapeutic Goods Act 1989* (Cth) (“the Act”) to be goods that are represented to be or for any reason are likely to be taken to be for therapeutic use. “Therapeutic use” under s 3 is broadly defined to mean, amongst other things, use in or in connection with “preventing, diagnosing, curing or alleviating a disease, ailment, defect or injury in persons.”

Under s42DD a “restricted representation” is an advertisement

about therapeutic goods that refers to a form of a disease, condition, ailment, or defect identified in a part of the *Therapeutic Goods Advertising Code (No 2) 2018* (“2018 Advertising Code”) as a *serious form* of a disease, condition, ailment or defect.

Section 28(1) of the Advertising Code states that a form of a disease, condition, ailment or defect is a *serious form* if:

- (a) it is medically accepted that the form requires diagnosis or treatment or supervision by a suitably qualified health professional, except where the form has been medically diagnosed and medically accepted as being suitable for self-treatment and management; or
- (b) there is a diagnostic (including screening), preventative, monitoring, susceptibility or pre-disposition test available for the form (including a self-administered test), which requirements medical interpretation or follow-up.

Section 10 of the 2018 Advertising Code provides that: Advertising for therapeutic goods must:

- (a) support the safe and proper use of therapeutic goods by:
 - (i) presenting the goods in accordance with directions or instructions for use; and
 - (ii) not exaggerating product efficacy or performance; and
- (b) not be likely to lead to people delaying necessary medical attention or delaying the use of, or failing to use, treatment prescribed by a medical practitioner; and
- (c) not encourage inappropriate or excessive use of the therapeutic goods; and
- (d) not contain any claim, statement, implication or representation that:
 - (i) the therapeutic goods are safe or that their use cannot cause harm, that they have no side-effects; or
 - (ii) the therapeutic goods are effective in all cases of a condition or that the outcome from their use is a guaranteed or sure cure; or
 - (iii) the therapeutic goods are infallible, unfailing, magical or miraculous; or
 - (iv) harmful consequences may result from the therapeutic goods not being used — unless the claim, statement, implication or representation is permitted under section 42DK of the Act or approved under section 42DF of the Act.

Under section 42DLB(4) of the Act, a person contravenes a civil penalty provision if they advertise therapeutic goods for a therapeutic use (without approval or permission from the TGA) that are not entered in the Australian Register of Therapeutic Goods. Infractions can result in the imposition of significant fines. The purpose of these is deterrent (see eg *Secretary, Department of Health v Peptide Clinics Australia*, 2019). These provisions have been deployed in relation to spurious representations about prevention of COVID-19, as well as its cure or treatment.

For instance, a company run by a celebrity chef, Pete Evans, was fined \$A25,200 for claims made on Facebook that his BioCharger device could be used in relation to “Wuhan Coronavirus”. The potential for this to occur had been flagged a month earlier by the Therapeutic Goods Administration (TGA):

Unfortunately, some people are taking advantage of the current situation by advertising products that claim to prevent or cure COVID-19.

Claims being made include unregistered products that ‘kill COVID-19’, air purifiers that help fight the coronavirus, complementary medicines that prevent the virus, and a medical device that treats a number of serious diseases including COVID-19, HIV AIDS and cancer ([Australian Government Department of Health, Therapeutic Goods Administration, 2020a](#)).

Another body fined by the TGA, on this occasion \$A63,000, was OxyMed Australia Pty Ltd. This arose from alleged contraventions relating to the advertising of hyperbaric oxygen chambers not included in

the Australian Register of Therapeutic Goods. The advertisements made therapeutic claims to treat a range of serious ailments, including COVID-19 ([Therapeutic Goods Administration, 2020b](#)).

For several years the Genesis II Church of Health and Healing promoted a product known as “Miracle Mineral Solution” (MMS) which was marketed as containing a “Miracle Mineral Supplement”. It contained 28% sodium chlorite, a chemical used as a textile bleaching agent and disinfectant.

In 2014 media reported that ten Victorians had been poisoned by MMS in the previous five years ([Minear, 2014](#)). It reported that Victorian Poisons Information Centre specialist, Dr. Dawson MacLeod, said that people had reported symptoms including vomiting and diarrhoea after using MMS with four having to be hospitalised. He said it could cause “potentially life-threatening illnesses” and that the long-term consequences of using MMS were not known. The President of the Australian Medical Association, Victorian branch, Dr. Tony Bartone, castigated “snake oil salesmen” for preying upon vulnerable people with “magic potions”: “There’s no evidence whatsoever and certainly no clinical trials to suggest this is anything more than bleach. It certainly should be banned.” ([Minear, 2014](#)). This prompted the TGA to publish an advisory stating that: “Products containing this concentration of sodium chlorite pose a serious health risk if consumed by humans and should be labelled with warnings and the word ‘POISON’. MMS is not approved by the TGA for any therapeutic use. In Australia, products that are used in the purification or treatment of drinking water, and which do not make therapeutic claims, are not considered therapeutic goods. However, based on the media reports, the TGA is concerned that some people may be using MMS to treat illnesses or for other therapeutic purposes. Using MMS in this way will not have any therapeutic benefit and may have toxic effects.” ([Therapeutic Goods Administration, 2014](#)).

On 13 May 2020 the TGA issued twelve infringement notices totalling \$A151,200 for allegedly unlawful advertising of MMS and other medicines by Southern Cross Directories Pty Ltd. trading as MMS Australia, stating that: “There is no clinical, scientifically-accepted evidence showing that MMS can cure or alleviate any disease. The use of MMS presents serious health risks, and can result in nausea, vomiting, diarrhoea and severe dehydration, which in some cases can result in hospitalisation.” It stated that its reason for action was alleged contravention of the *Therapeutic Goods Act 1989* (Cth) and the Therapeutic Goods Advertising Code (No 2) 2018 in relation to advertisements ([Therapeutic Goods Administration, 2020d](#)). It also issued an advisory to consumers to be alert to misleading claims about MMS for the treatment, cure, prevention or alleviation of disease in humans, including COVID-19:

MMS is often marketed as water purification drops and may be offered under different names, including Miracle Mineral Supplement. It contains a high concentration of sodium chlorite, which is a chemical used as a textile bleaching agent and disinfectant. Products containing high concentrations of sodium chlorite pose a serious health risk if consumed by humans and should be labelled with the appropriate warnings. MMS has not been approved by the TGA for use to treat, cure, prevent or alleviate any disease or condition ([Therapeutic Goods Administration, 2020c](#)).

The body fined was associated with the Genesis II Church of Health and Healing. Its leader, Mark Grenon, had written to Donald Trump, the United States President, telling him that chlorine dioxide is “a wonderful detox that can kill 99% of the pathogens in the body”. He added that it “can rid the body of Covid-19”. A few days later, at his daily coronavirus briefing at the White House, President Trump promoted the idea that disinfectant could be used as a treatment for the virus, stating that disinfectant “knocks it out in a minute. One minute!” He went on to ask a public health official: “Is there a way we can do something, by an injection inside or almost a cleaning? Because you see it gets in the lungs and it does a tremendous number on the lungs, so it’d be

interesting to check that.” ([Pilkington, 2020](#)). On 24 August 2020 the Federal Court of Australia ordered Oxymed Australia Pty Ltd to take down its website because of representations about conditions, including COVID-19.

6. False online communications: legal responses

In a number of countries, concern has been expressed about the propagation of a diverse array of forms of false information online in relation to COVID-19. In Russia, for instance, investigators were announced to be considering whether to bring a criminal prosecution as a result of a YouTube video falsely alleging that organs were being harvested from coronavirus patients for medical treatment of COVID-19 ([Prosecutors Demand Probe into Fake News about Harvesting of COVID-19 Patients’ Organs, 2020](#)). In addition, robust action has been taken against those making false online claims generally about online cures and treatments for COVID-19 ([Pospelova, Pavlova, Kamenskaya & Pospelova, 2020](#)). In Israel a Rishon Letzion resident allegedly sent a message in the name of the Health Ministry to his girlfriend, who had returned from Miami, in an effort to get her to self-quarantine. He was conveyed for investigation at the cybercrimes unit of the Lahav 433 police anti-corruption unit for four crimes, including publishing false information to cause fear and panic and transmitting false information. He had used software to make his messages look as though they came from the Health Ministry. He sent a message to the woman to quarantine herself and another to her friend, telling her to keep her distance (Beiner, 2020).

Perhaps, the extreme end of repression of ‘fake coronavirus news’, though, raising the risk for government action to constitute an unreasonable contravention of human rights ([McDonald, 2020](#)), occurred in Cambodia. A 14 year-old girl in Kampot was detained and compelled to apologise publicly for writing in a message on Facebook that there were three people ill with COVID-19 at her school and that others had died from the disease ([Vicheika & Tum, 2020](#)).

7. Conclusions

A number of factors can create a conducive environment for the making of false claims and communications online in the context of a pandemic. Anxieties and fears engendered by the pandemic can render people vulnerable, especially in an online environment. Dread of contracting and being harmed by a disease such as COVID-19 can be exacerbated by religious associations with pestilences and plagues, literary traditions, film portrayals, and computer game tropes, as well as factors such as personality issues, educational deficits, language limitations, social isolation and disabilities. Alone and in combination such vulnerabilities are apt to be fanned by chronically anxiety-inducing media coverage. An outcome is the potential for predatory opportunities to exploit those vulnerable to credulity and the suspension of faculties of discernment and rational evaluation of claims about prophylaxis and therapeutic efficacy.

The reality of pandemic vulnerability raises the question of how most constructively public health authorities can respond in the context of the COVID-19 pandemic to meet both conspiracy theories and therapeutic misrepresentations. Recent responses by governments in a number of countries, including the United States, the United Kingdom, Japan and Australia, have provided a useful perspective.

Firstly, health messaging needs to be communicated in a calm and straightforward tone which does not exacerbate anxieties and irrational fears, but rather encourages prudent care-taking conduct. Secondly, there needs to be a continuing flow of medico-scientific evidence-based education which works toward disabusing members of the community of misunderstandings, fears and fallacies which otherwise may gain popular traction and exacerbate paranoid and anxiety pathologies, as well as render people more prone to be victimised.

Thirdly, there is a need for governments to be assertive in taking

preventative and deterrent action against those who are misusing the COVID-19 era to enrich themselves opportunistically or to take advantage of those who lack the capacity to be discerning about false claims of capacity to prevent, treat, or cure the disease. For good reason, the traditional public health approach to such misrepresentations is to provide a clear warning initially to those responsible for such misinformation in the form of what in the United States are called cease and desist orders. However, where there is non-compliance in face of such governmental communications, robust legal action needs to be initiated with condign imposition of penalties to deter and punish unethical quackery during a pandemic.

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